US 20190241981A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2019/0241981 A1

Schroper et al. (43) Pub. Date: Aug. 8, 2019

(54) **PLANT BREEDING USING NEXT GENERATION SEQUENCING**

(71) Applicant: **Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e.V.**, Munich (DE)

(72) Inventors: **Florian Schroper**, Bruehl (DE); **Leonie Fritsch**, Aachen (DE); **Stefan Schillberg**, Aachen (DE)

(21) Appl. No.: **16/071,999**

(22) PCT Filed: **Jan. 25, 2017**

(86) PCT No.: **PCT/EP2017/051480**

§ 371 (c)(1),
(2) Date: **Jul. 23, 2018**

(30) **Foreign Application Priority Data**

Feb. 1, 2016 (EP) 16153617.2

Publication Classification

(51) **Int. Cl.**
C12Q 1/6895 (2006.01)

(52) **U.S. Cl.**
CPC ***C12Q 1/6895*** (2013.01); *C12Q 2600/16* (2013.01); *C12Q 2600/13* (2013.01); *C12Q 2600/156* (2013.01)

(57) **ABSTRACT**

The technology provided herein relates to novel methods for screening/detecting of plants, in particular by a multiplex PCR-based combined with a next-generation sequencing approach to analyze a plurality of characteristics (e.g. target sequences) of an individual plant in parallel.

Specification includes a Sequence Listing.